

Speaking metaphors in audio description for children: processing meaning through visual and aural stimuli

Hablando con metáforas en la audiodescripción para niños: procesamiento de significado a través de estímulos visuales y auditivos

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ABSTRACT: The study described here aimed at evaluating how the presence of metaphors in audio description (AD) dedicated to children in early-school age influences their reception of animated films – that is the understanding of the plot and the level of amusement, which may be enhanced by the AD’s figurative language. Above all, however, its goal was to establish whether the presence of metaphors in AD track encourages children to repeat them in their own statements and if children are able to learn the meaning of metaphors by the context introduced by the film’s visual layer and/or by the audio tracks comprising dialogues, background sounds and AD itself. Finally, it wanted to find out if there are any differences (and, if so, what they are) between children with and without visual impairment in the understanding and/or revealing the meaning of the figurative language of AD scripts heard.

Key words: unconventional audio description (AD), AD in education, child’s literacy, cognitive-linguistic development, metaphors, figurative thinking.

RESUMEN: El estudio descrito aquí tiene como objetivo evaluar cómo la presencia de metáforas en la audiodescripción (AD) dirigida a niños en edad escolar temprana influye en su recepción de películas animadas, es decir, la comprensión de la trama y el nivel de diversión, que puede ser mejorado por el lenguaje figurativo de la AD. Pero, por encima de todo, su objetivo es establecer si la presencia de metáforas en la pista AD alienta a los niños a repetirlas en sus propias declaraciones y si los niños pueden aprender el significado de las metáforas por el contexto introducido por el formato visual de la película y/o por las pistas de audio que comprenden diálogos, sonidos de fondo y AD. Finalmente, este artículo se plantea averiguar si existen diferencias (y, de ser así, cuáles son) entre los niños con y sin discapacidad visual en la comprensión y/o revelación del significado del lenguaje figurativo de los guiones de AD escuchados.

Palabras clave: audiodescripción (AD) no convencional, AD en educación, alfabetización infantil, desarrollo cognitivo-lingüístico, metáforas, pensamiento figurativo.

1. INTRODUCTION

Audio description (hereafter: AD) is an additional narration track providing people with visual impairments with access to audio-visual products, such as films, television or theatre performances. It has also proved to be an effective tool in education and entertainment for children with and without visual impairment alike (Benecke, 2015; Krejtz I. *et al.*, 2012; Krejtz K. *et al.*, 2012; Krejtz *et al.*, 2014; Walczak and Rubaj, 2014; Zabrocka, 2017, 2018, forthcoming).

Conventionally prepared AD includes a third-person narration describing what is happening in the visual layer of the audio-described product; descriptions may include the characteristics of the settings, costumes, gestures and even sound effects that are deemed difficult to understand without the aid of visual elements. Traditionally, AD is added between dialogues so as not to interfere with the characters' speech and is meant to be a factual, non-interpretative description of what is presented on the screen. Unconventional AD formats, on the contrary, although still dependent on and compelled by the described product, do not avoid subjective explanatory descriptions or stylistic figures, which strongly influence the reception of a given audio-visual product and the audience's response to it; they may also use sound effects to better render its atmosphere.¹ This makes such an alternative AD especially beneficial for educational purposes.

This article focuses on the AD employing a wide variety of metaphors. In stylistics, metaphor is perceived as a form of “enhanced content” since it always tends to create a marked poetic effect (Wade, 2017: 306, with reference to Humboldt 1836/1999). Consequently, AD written in a figurative language may be considered as an unconventional or even creative one.

For the considerations presented in this article vital seems to be also Veliz's (2017: 836) claim that learning new words and utterances, including those with figurative meaning, “is by no means constrained to the number of encounters learners may have with an unknown word or the contextual affordances to guess or infer its meaning in context”. The author likewise remarks that “learning metaphorical words requires an approach that enables learners to understand the systematicities behind the relationships between the different domains involved in the metaphor”, and he emphasizes the fact that “metaphor is not simply a stylistic or ornamental device of language” but rather “something that permeates the ways in which individuals reason and conceptualize the world” (*ibid.*: 836, 837). Accordingly, the way people think and the language they use emerge from their early experiences in the world, particularly from their physical interactions with reality (Cuccio and Fontana, 2017; Veliz, 2017). This is consistent with some authors' remarks (e.g. Meier and Robinson, 2005; Ojha *et al.*, 2017) that children's ability to think in abstract terms increases as they grow older, so it must be built on their prior sensorimotor and bodily experiences since the interpretation of some verbal metaphors requires having the ability to produce mental images of perception-like experiences.

The study described here aimed at evaluating how the presence of metaphors in AD dedicated to children of early-school age influences their reception of animated films – that is, the understanding of the plot and the level of amusement, which may be enhanced by the AD's figurative language. Above all, however, its goal was to establish whether the presence of metaphors in an AD track encourages children to repeat them in their own statements and if children are able to learn the meaning of metaphors from the context introduced by the film's visual layer and/or from the audio tracks comprising dialogues, background sounds and/or AD itself. Finally, it aimed to find out if there are

¹ Cf. <http://enhancingaudiodescription.com>

any differences (and, if so, what they are) between sighted and visually impaired children in the acquisition of the meaning of metaphors through AD.

2. SOME GENERAL REMARKS ON METAPHORS AND CHILDREN

The metaphors people use (most often unconsciously) reflect their way of perceiving various phenomena and likewise enable them to understand and express some concepts in a very clear, concise and accessible way, which is useful especially while speaking about things that are difficult to know empirically, e.g., emotions (Gibbs, 1994; Glucksberg, 2001; Kövecses, 2000, Lakoff and Johnson, 2003/1980, 1999; Sticht, 1993). Therefore, as Lakoff and Johnson claimed (2003/1980), people live and think by metaphors. While acquiring language, children not only create their reality by this language, but the language itself is a part of their reality – a fundamental medium in their development of social and cultural knowledge and sensibility; for this reason, although acquiring language and culture are two separate and different processes, they are interdependent (Arwood, 2011; Halliday, 2004; Ochs and Schieffelin, 2012).

Children's learning to understand and create metaphors is perceived as a purely adaptive process, and though it takes a long time, its mastery constitutes a milestone for both the linguistic and the conceptual development of the child, since production of metaphors not only depends on the conceptual knowledge s/he already has, but also contributes to its enrichment (Özçalışkan, 2014; Vosniadou, 1986). Moreover, for young children metaphorical utterances “may well be a constitutive form of language, an absolutely necessary feature of discourse”, enabling the grasp of new experiences (Emig, 1972: 170). By estimating the level of someone's ability to understand metaphors, we can determine to what extent her/his cognitive competence and language skills, fundamental for further development, have been attained (Dryll, 2014).

Besides, metaphors have proved to be valuable in education as they help to reflect and organise social thought and practice in schooling; they likewise constitute a bridge between things that are already known and those yet to be learned (Clark, 2004; Mayer, 1993; Petrie et al., 1993; Scheffler, 1960; Sticht, 1993; Vosniadou, 1987). This is confirmed by Cortazzi and Jin (1999) who likewise prove the undeniable value of metaphors as a tool for facilitating the process of education and comprehension, with particular emphasis on speech and literacy development.

Humans have an instinctive metaphor-making ability, and children show early evidence of it, since they are able to understand and use their first metaphors soon after they start to speak (Geary, 2011). This may be due to the fact that metaphors are based on class-inclusion assertion, and even very young children have class-inclusion rules which they apply to create metaphors, despite the fact that they do it rather instinctively (Holzman, 1997). Nonetheless, first metaphors – most frequently some noun-noun substitutions or similes based on simple resemblances of objects – are said to appear as early as between 12 and 24 months and tend to emerge during pretend play (Geary, 2011). 2-3-year-olds can usually produce simple perceptual metaphors (and constantly extend this ability), 3-4-year-olds spontaneously produce new utterances based on the similarity between objects, and by the age of 5 children use similarity-based explanations of their choice in experimental tasks (Özçalışkan, 2014). Although even young children use language not only in its literal sense and as early as by the age of 5 they are able to understand sentences including figurative language, their conceptual and linguistic knowledge is thought to be still too limited at that moment to allow them to produce figurative language themselves in a fully intentional and sophisticated way (Hulit and Howard, 2006; Piaget, 1962; Vosniadou, 1987; Winner, 1988).

Accordingly, the understanding of metaphor is rather intuitive in children before the age of 6, and it is common that metaphorical utterances are understood by children literally; however, after that they gradually develop their competence in figurative thinking and speaking (which happens in parallel with their language competence) to obtain – at around 10-years of age – the nearly full capability of explaining the meaning of metaphors they hear (Geary, 2011; Hulit and Howard, 2006). This seems to be consistent with Piagetian theory, which mentions the transition that takes place around the age of 11/12 from the concrete operational stage to the formal operational stage when the so-called theory of mind is already developed and the ability to think in a more abstract way and to adopt another person's point of view is in progress (Piaget, 1923, 1962; Meier and Robinson, 2005). It should be emphasized that operating with metaphors seems to be both cause and effect in that process since metaphors – by structuring concepts – play an important role in abstract thinking and facilitate understanding of abstract concepts. Holzman (1997), too – being of the opinion that one has the potential to use metaphors when one is able to understand that their literal meaning is false – estimates that the milestone in the metaphorical thinking of most children occurs when they reach the age of 6. From that moment they are thought to master their ability to use metaphors of a relational structure, i.e. those which convey relational mappings between conceptual domains, while earlier children could only deal with perceptual metaphors – i.e. those based on object structure and conveying feature-based similarities between objects (*ibid.*, Emig, 1972; Özçalışkan, 2014). In Özçalışkan (2014), nonetheless one can find the information that most early structural metaphors, in which children usually map physical terms onto abstract concepts, may occur even as early as at the age of 5, but the source or target domains of the metaphor need to be familiar to children for this to happen. In any event, the author claims that the development of structural metaphors emerges between the ages of 5 and 14 years, and its trajectory is influenced by several factors, ranging from the child's knowledge of words and the source and target concepts as well as familiarity with the metaphorical mappings to the linguistic demands of the experimental metaphor tasks (*ibid.*, Gibbs, 1994; Vosniadou, 1987).

There is another issue – gesturing – which is likewise correlated to that of metaphorical thinking. Gestures are a mode of expression closely linked with language and speech, and since gesturing develops together with language acquisition it is perceived concurrently as a medium and an outcome of language development (Cuccio and Fontana, 2017; Gullberg et al., 2010). At the beginning hand gestures are used by children to assist them with the linguistic system, substituting for words that they have not yet acquired and are not able to use, but with time gesturing changes and the use of gestures reveals the stage of the child's mental development (Hoff, 2012; Holzman, 1997). 3-4-year-olds, when asked to describe the metaphorical motion of abstract concepts, typically perform whole-body actions conveying physical motion, and 5-6-year-olds produce metaphorical hand gestures that convey information about the metaphorical mapping in spaces appropriate for the abstract concept, so that the involvement of gesturing enables the re-creation in the observer of the meaning intended by the speaker (Cuccio and Fontana, 2017; Özçalışkan, 2014). This all leads to the assumption that metaphorical thinking is closely related to language development and could be reinforced along with it by adequate linguistic stimulation inspiring children to play with language. This is especially if one takes into account the fact that metaphor itself is proven to be an efficient device for general education.

The general conclusions from the previous sections are that communication between people and their way of thinking are permeated with metaphors, and children have an instinctive metaphor-making ability which manifests as early as in the first years of

their life when they start distinguishing literal and non-literal utterances as well as producing simple similes, substitutions and re-namings (Geary, 2011; Vosniadou, 1987). It has also been claimed that at the beginning children tend to take metaphors literally, and only after achieving an accurate level of mental maturity are they able to discover their second meaning. Next, the sources mentioned showed that metaphors are generally appreciated as an effective vehicle for knowledge acquisition and cognitive enhancement. However, to make both of these happen, at least one of the parts of the metaphor must be familiar to children. Moreover, as Crawford (2014: 68) finds out, conceptual metaphors are proved to positively affect memory, which means that they also play a role in what she calls “offline cognition”. The last thing worth mentioning is what Piaget (1962) noticed on the basis of some experiments involving children (he mentioned specifically children aged around 9-11), that giving children an apposite context for the proverb and/or metaphor makes its understanding by children significantly better. In a similar vein, Vosniadou (1987) writes that context helps not only to decide if one is dealing with a literal or metaphorical use of language, but it is also supportive in determining the possible meaning of the metaphor. When it comes to the metaphors used in AD, the proper context may (and must) be assured by all the audio tracks of the film, including other information contained within the AD track itself, which is proved by the study described in the subsequent parts of this text.

3. DESCRIPTION OF THE STUDY

3.1. PROCEDURE AND METHOD

A series of tests with children at primary school age, both sighted and with severe sight loss, was conducted in spring 2018 in order to investigate the influence of the figurative language of AD on the reception of animated films by young viewers, as well as their understanding and production of metaphorical utterances. Two animated films were presented to the participants: one accompanied by a “conventional” AD – that is a rather simple, although succulent, third-person narration describing the visual in a comparatively less poetical way, and one by a kind of creative AD containing a large number of utterances of a metaphorical character. Each of the one-to-one tests was preceded by a short conversation which included an explanation of the procedures and asking some control questions (sometimes identical to the test questions); the latter made it possible to estimate a participant’s initial knowledge of metaphorical expressions. Then every participant watched both films at short intervals of around 10-15 minutes during which the test questions concerning the watched film were asked. When it comes to the technical aspects of the course of the experiment, some variables were introduced: the order of the films’ screening as well as the kind of AD accompanying each of them were not the same for all the participants, which is presented in Table 1, below. This allowed for minimizing the influence of some external factors on the children’s reception of what was presented to them and – in consequence – on the results obtained.

After watching both films, the participants in the study were asked to summarize their content. While the children were retelling the story, attention was paid to the expressions they used as well as to the gestures with which they were supporting their narrations. In addition to that, the children were questioned about the meaning of the metaphors used in the AD scripts. In this process all the children were asked about all the metaphorical utterances, regardless of whether they had actually appeared in the AD they had heard or in the other one. In this way it was possible to estimate the influence of the presented AD on the language currently used by the children, as well as the influence of the context in

which the metaphors were used, on the understanding of their meaning. At the end of the test, every child was also asked which of the films s/he liked most and why. In some children's opinion choosing the better film was the most difficult task of the test.

Table 1. Characteristics of the children participating in the study along with the information about the films/AD tracks presented to them and preferred by them.

participant's (P) NUMBER and GENDER (G/B)	approximate AGE (y;m)	Vision condi- tion	Film watched as first	Film watched as second	Preferred film	The kind of ADs preferred film
			cAD – “conventional” AD mAD – AD with metaphors			
P1 (B)	8;5	SIGHTED	Partly Cloudy (cAD)	La Luna (mAD)	LL	mAD
P2 (B)	8;4	SIGHTED	Partly Cloudy (cAD)	La Luna (mAD)	LL	mAD
P3 (G)	9;7	BLIND (con- genitally)	Partly Cloudy (cAD)	La Luna (mAD)	LL	mAD
P4 (G)	8;8	SIGHTED	Partly Cloudy (cAD)	La Luna (mAD)	LL	mAD
P5 (B)	8;8	SIGHTED	Partly Cloudy (cAD)	La Luna (mAD)	PC	cAD
P6 (B)	8;9	SIGHTED	Partly Cloudy (mAD)	La Luna (cAD)	LL	cAD
P7 (B)	7;11	SIGHTED	Partly Cloudy (mAD)	La Luna (cAD)	PC	mAD
P8 (B)	9	SIGHTED (slight myopia diagnosed, no glasses)	Partly Cloudy (mAD)	La Luna (cAD)	PC	mAD
P9 (G)	8	VISUALLY IMPAIRED (residual vision)	Partly Cloudy (mAD)	La Luna (cAD)	PC	mAD
P10 (B)	11;9	SIGHTED	La Luna (cAD)	Partly Cloudy (mAD)	PC	mAD
P11 (G)	6;8	SIGHTED (using glasses due to myopia and slight astig- matism)	La Luna (cAD)	Partly Cloudy (mAD)	PC	mAD
P12 (G)	10;8	BLIND (con- genitally)	La Luna (cAD)	Partly Cloudy (mAD)	PC	mAD
P13 (G)	7;1	SIGHTED	La Luna (cAD)	Partly Cloudy (mAD)	PC	mAD
P14 (G)	7;4	SIGHTED	La Luna (mAD)	Partly Cloudy (cAD)	PC	cAD
P15 (G)	10;3	VISUALLY IMPAIRED (residual vision)	La Luna (mAD)	Partly Cloudy (cAD)	LL	mAD
P16 (G)	11;7	SIGHTED (using glasses due to myopia)	La Luna (mAD)	Partly Cloudy (cAD)	PC	cAD
P17 (B)	8	SIGHTED	La Luna (mAD)	Partly Cloudy (cAD)	PC	cAD
P18 (G)	7,7	BLIND (sight lost before the age of 3)	La Luna (mAD)	Partly Cloudy (cAD)	PC	cAD

3.2. PARTICIPANTS

Ten girls and eight boys took part in the study and their age ranged from 6;8 to 11;9. They included sighted children (possibly with some minor defect of vision not affecting their ability to receive visual content) as well as children with serious visual impairments – from vestigial vision to complete blindness (for details see Table 1, above).

The participants were recruited mainly through social media, where the information about the planned tests was published. Thanks to courtesy of the management of the special education centre for blind and visually impaired children and teenagers in Krakow, a similar announcement could be offered directly to the visually impaired students of the school. All of the participants were of the so-called “intellectual norm” and did not have any other disabilities (such as hearing impairment) which might have influenced their reception of the films. After taking part in the project all the participants were rewarded with small gifts, such as books and audiobooks.

3.3. MATERIALS

For the purposes of the study two animated films with no age limits mentioned were chosen; they were *La Luna* (released in 2011, running time: 6 min. 58 sec.) and *Partly Cloudy* (released in 2009, running time: 5 min. 45 sec.) produced and distributed by Walt Disney Pictures and Pixar Animation Studios. Both films are of rather comical character, supposed to amuse children; in addition, each of them had a moral. What is pivotal is that both the films are marked by rather striking background sounds (including laughter or murmuring by the characters) but at the same time they do not contain any dialogue – thanks to which it was possible to equip them with more complex descriptions.

As mentioned above, the films were accompanied by a “conventional” and a “metaphorical” AD track, both of which were meant to be alluring (vivid, funny and attention grabbing) in order to engage viewers in the watched content. As in the study described by in Geary (2011), the “metaphorical” AD scripts involved figurative language utterances of three categories: poetical metaphors and sentences that ought not to be taken literally in the given context, nonliteral use of adjectives, and similes and re-namings made on the basis of metaphors-comparisons. In all these three categories wordplays also appear; they are based on the figurative meaning of words or related to fossilized expressions and proverbs used in the Polish language. Several samples of the descriptions provided via the presented AD tracks may be found in Table 2 (below).

Table 2. Example utterances extracted from the AD scripts used in the study with their literal translations.

Conventional AD	Literal translation ² of the “conventional” AD	AD with metaphors	Literal translation of the “metaphorical” AD
<i>Partly Cloudy</i>			
“Bociany dostarczyły paku- nki i zadowolone odlatują w przestworza.”	The storks delivered parcels and, satisfied, fly out into the sky.	“Ekipa <i>kurierów</i> po dobrze wykonanej robocie odla- tuje w przestworza.”	A team of <i>couriers</i> after a well- done job flies out into the sky.
“To mały rogaty koziołek. Nie jest miły! Od razu bodzie bociana w brzuch!”	It’s a small horned goat. It is not nice! He immediately go- res the stork in the stomach!	“To mały rogaty koziołek. Wcale <i>nie słodki</i> ! Bodzie <i>biednego</i> boćka w brzuch!”	It’s a small horned goat. <i>Not sweet</i> at all! He gores poor stork in the stomach!

² All translations from Polish into English are the author’s own.

“Chmurki są jasne, puchate i życzliwe.”	Clouds are bright, fluffy and kind.	“Chmurki są pogodne, puchate i słodkiutkie jak wata cukrowa.”	Clouds are sunny, fluffy and sweet like cotton candy.
La Luna			
“Noc. Na granatowym niebie gwiazdy. Po granatowym morzu płynie łódź o nazwie La Luna.”	Night. The stars on the navy-blue sky. The boat called La Luna passes the navy blue sea.	“Atramentowe niebo zlewa się z atramentowym morzem. Przez noc płynie łódź o nazwie La Luna.”	The ink-jet sky blends with the ink-jet sea. The boat named La Luna flows through the night.
“Patrz w górę: księżyc już nie jest okrągły, ale półokrągły.”	They look up: the moon is no longer round, but half-round.	“Patrz w górę: w miejscu wielkiego grejpfruta jest teraz złocisty rogalik.”	They look up: there is a golden croissant in the place of a big grapefruit.
“To niezwykle widok.”	This is an extraordinary view.	“To magiczny widok.”	It’s a magical view.

4. STUDY RESULTS AND DISCUSSION

All the participants of the test were in what Piaget called the “pre-occupational stage” of development; thus, they were expected not to be able to fully understand and/or produce metaphors. Such a selection of respondents was intended to make it easier to observe the direct effect of “metaphorical” AD on them. The questions put to the respondents concerned their understanding of the figurative constructions presented in Table 3 (below).

Table 3. Understanding of the given metaphors by the respondents. (The meaning of the numbers and symbols is explained in the Legend, under the table.)

Utterance ³	Understanding of given utterance by...							
	the participants who watched the film with “conventional” AD:		the same participants (in control questions):		the participants who watched the film with “metaphorical” AD:		the same participants (in control questions):	
	SIGHTED CHILDREN	BLIND CHILDREN	SIGHTED CHILDREN	BLIND CHILDREN	SIGHTED CHILDREN	BLIND CHILDREN	SIGHTED CHILDREN	BLIND CHILDREN
Kto to jest kurier? [Who is a courier?]	---	---	(+) 7/7 (+/-) 0/7 (-) 0/7	(+) 2/3 (+/-) 0/3 (-) 1/3 ⁴	---	---	(+) 5/6 (+/-) 1/6 (-) 0/6	(+) 1/2 (+/-) 1/2 (-) 0/2
<i>Grupa kurierów po dobrze wykonanej robocie odlatuje w przestworza.</i> [A team of couriers after a well-done job flies out into the sky.]	(+) 4/7 (+/-) 2/7 (-) 1/7	(+) 1/3 (+/-) 0/3 (-) 2/3	---	---	(+) 4/6 (+/-) 1/6 (-) 1/6	(+) 2/2 (+/-) 0/2 (-) 0/2	---	---
<i>być nachmurzonym / mieć pochmurną minę</i> [to be scowling / to have a cloudy face]	(+) 6/7 (+/-) 1/7 (-) 0/7	(+) 3/3 (+/-) 0/3 (-) 0/3	(+) 2/7 (+/-) 2/7 (-) 3/7	(+) 1/3 (+/-) 0/3 (-) 2/3	(+) 5/6 (+/-) 0/6 (-) 1/6	(+) 2/2 (+/-) 0/2 (-) 0/2	(+) 3/6 (+/-) 0/6 (-) 3/6	(+) 0/2 (+/-) 0/2 (-) 2/2

³ In brackets translated literally, so that the figurative character of the some of them is not conserved.

⁴ The only participant who claimed not to know who the courier is was a blind girl living in a boarding school. The girl was probably not used to meeting couriers herself, which is a quite common experience for children living every day with their parents. But it turned out that the girl knew the meaning of the word “courier” and she remembered who the courier was after being asked about the group of couriers who flew out after delivering the parcels.

<i>rozchmurzyć się</i> [to brighten up]	(+) 2/7 (+/-) 0/7 (-) 5/7	(+) 1/3 (+/-) 0/3 (-) 2/3	---	---	(+) 2/6 (+/-) 2/6 (-) 2/6	(+) 1/2 (+/-) 0/2 (-) 1/2	---	---
<i>być pogodnym, mieć pogodną minę⁵</i> [to be cheerful, to have a sunny face]	(+) 6/7 (+/-) 0/7 (-) 1/7	(+) 2/3 (+/-) 1/3 (-) 0/3	(+) 5/7 (+/-) 1/7 (-) 1/7	(+) 3/3 (+/-) 0/3 (-) 0/3	(+) 5/6 (+/-) 0/6 (-) 1/6	(+) 2/2 (+/-) 0/2 (-) 0/2	(+) 6/6 (+/-) 0/6 (-) 0/6	(+) 1/2 (+/-) 0/2 (-) 1/2
<i>kolory wylały się na niebo</i> [the colours have spilled out onto the sky]	(+) 3/7 (+/-) 1/7 (-) 3/7	(+) 1/3 (+/-) 0/3 (-) 2/3	---	---	(+) 3/6 (+/-) 1/6 (-) 2/6	(+) 0/2 (+/-) 0/2 (-) 2/2	---	---
<i>niebo tonie w błękiecie</i> [the sky is drowning in blue]	(+) 4/7 (+/-) 0/7 (-) 3/7	(+) 1/3 (+/-) 1/3 (-) 1/3	---	---	(+) 5/6 (+/-) 1/6 (-) 0/6	(+) 1/2 (+/-) 1/2 (-) 0/2	---	---
<i>niebo jest zalane wschodem słońca</i> [the sky is flooded with sunrise]	(+) 4/7 (+/-) 0/7 (-) 3/7	(+) 1/3 (+/-) 0/3 (-) 2/3	---	---	(+) 1/6 (+/-) 1/6 (-) 4/6	(+) 1/2 (+/-) 0/2 (-) 1/2	---	---
<i>być zmarnowanym</i> [to be wasted, exhausted]	(+) 6/7 (+/-) 0/7 (-) 1/7	(+) 2/3 (+/-) 0/3 (-) 1/3	(+) 2/7 (+/-) 2/7 (-) 3/7	(+) 0/3 (+/-) 1/3 (-) 2/3	(+) 4/6 (+/-) 2/6 (-) 0/6	(+) 1/2 (+/-) 0/2 (-) 1/2	(+) 1/6 (+/-) 1/6 (-) 4/6	(+) 0/2 (+/-) 0/2 (-) 2/2
<i>być słodkim</i> [to be sweet]	(+) 6/7 (+/-) 1/7 (-) 0/7	(+) 2/3 (+/-) 1/3 (-) 0/3	(+) 5/7 (+/-) 0/7 (-) 2/7	(+) 1/3 (+/-) 2/3 (-) 0/3	(+) 6/6 (+/-) 0/6 (-) 0/6	(+) 2/2 (+/-) 0/2 (-) 0/2	(+) 2/6 (+/-) 2/6 (-) 2/6	(+) 1/2 (+/-) 0/2 (-) 1/2
<i>być zniesmaczonym</i> [to be disgusted]	(+) 3/6 (+/-) 0/6 (-) 3/6	(+) 1/2 (+/-) 0/2 (-) 1/2	---	---	(+) 5/7 (+/-) 0/7 (-) 2/7	(+) 1/3 (+/-) 0/3 (-) 2/3	---	---
<i>mieć kwaśną minę</i> [to have a sour face]	(+) 2/6 (+/-) 2/6 (-) 2/6	(+) 0/2 (+/-) 1/2 (-) 1/2	(+) 1/6 (+/-) 3/6 (-) 2/6	(+) 0/2 (+/-) 1/2 (-) 1/2	(+) 3/7 (+/-) 3/7 (-) 1/7	(+) 1/3 (+/-) 2/3 (-) 0/3	(+) 3/7 (+/-) 1/7 (-) 3/7	(+) 0/3 (+/-) 3/3 (-) 0/3
<i>mieć niewyraźną minę</i> [to have a vague face]	(+) 2/6 (+/-) 0/6 (-) 4/6	(+) 1/2 (+/-) 0/2 (-) 1/2	---	---	(+) 1/7 (+/-) 1/7 (-) 5/7	(+) 0/3 (+/-) 0/3 (-) 3/3	---	---
Co to jest atrament? [What is the ink?]	---	---	(+) 5/6 (+/-) 0/6 (-) 1/6	(+) 2/2 (+/-) 0/2 (-) 0/2	---	---	(+) 6/7 (+/-) 0/7 (-) 1/7	(+) 2/3 (+/-) 0/3 (-) 1/3
<i>Atrament nieba przecina spadająca gwiazda.</i> [The sky's ink is cut by a shooting star.]	(+) 2/6 (+/-) 0/6 (-) 4/6	(+) 0/2 (+/-) 0/2 (-) 2/2	---	---	(+) 4/7 (+/-) 0/7 (-) 3/7	(+) 1/3 (+/-) 0/3 (-) 2/3	---	---
<i>kołysać się w atramentowej ciszy</i> [to sway in the ink-jet silence]	(+) 3/6 (+/-) 2/6 (-) 1/6	(+) 0/2 (+/-) 1/2 (-) 1/2	---	---	(+) 3/7 (+/-) 3/7 (-) 1/7	(+) 1/3 (+/-) 2/3 (-) 0/3	---	---

⁵ The relatively high scores in the case of this metaphor might have been influenced by the fact that the children were asked about its meaning after the question about the “cloudy face so they could conclude that a “sunny face” must be the opposite to a “cloudy” one. However, when the same question was posed in a completely different context, e.g. after listening to the AD in which this metaphor never appeared, the children tended not to explain it properly because of their erroneous identification of the referent.

<i>nie wierzyć własnym oczom</i> ⁶ [not to believe one's eyes]	(+) 4/6 (+/-) 2/6 (-) 0/6	(+) 0/2 (+/-) 1/2 (-) 1/2	(+) 2/6 (+/-) 2/6 (-) 2/6	(+) 1/2 (+/-) 1/2 (-) 0/2	(+) 5/7 (+/-) 2/7 (-) 0/7	(+) 2/3 (+/-) 0/3 (-) 1/3	(+) 2/7 (+/-) 1/7 (-) 4/7	(+) 1/3 (+/-) 1/3 (-) 1/3
<i>to magiczny widok</i> [it's a magical view]	(+) 2/6 (+/-) 1/6 (-) 3/6	(+) 1/2 (+/-) 0/2 (-) 1/2	(+) 1/6 (+/-) 1/6 (-) 4/6	(+) 2/2 (+/-) 0/2 (-) 0/2	(+) 4/7 (+/-) 1/7 (-) 2/7	(+) 1/3 (+/-) 1/3 (-) 1/3	(+) 2/7 (+/-) 1/7 (-) 4/7	(+) 0/3 (+/-) 0/3 (-) 3/3
<i>sumiaste wąsy</i> [bushy mustache]	(+) 2/6 (+/-) 1/6 (-) 3/6	(+) 0/2 (+/-) 1/2 (-) 1/2	(+) 0/6 (+/-) 0/6 (-) 6/6	(+) 0/2 (+/-) 0/2 (-) 2/2	(+) 3/7 (+/-) 1/7 (-) 3/7	(+) 2/3 (+/-) 0/3 (-) 1/3	(+) 1/7 (+/-) 0/7 (-) 6/7	(+) 0/3 (+/-) 0/3 (-) 3/3
<i>Patrz w górę: w miejscu wielkiego grejpfruta jest teraz złocisty rogalik.</i> [They look up: there is a golden croissant in the place of a big grapefruit.]	(+) 2/6 (+/-) 1/6 (-) 3/6	(+) 0/2 (+/-) 1/2 (-) 1/2	---	---	(+) 3/7 (+/-) 1/7 (-) 3/7	(+) 2/3 (+/-) 0/3 (-) 1/3	---	---

Legend: (+) the child understands the word/utterance and is able to explain its meaning; (+/-) the child seems to understand more-or less the meaning of the word/utterance, e.g. is able to indicate the proper context for its use but fails to explain it correctly; (-) the child does not know or understand the word/utterance and cannot explain what it means. The numbers indicate how many children of those who watched the animated films with this combination of AD tracks provided a given answer, e.g. 3/7 means 3 children out of the 7 who watched the indicated combination of video and AD.

Before discussing the results of the study, it is worth mentioning that younger children usually needed some additional questions to coax them to give reliable and fully valid answers. To better illustrate the issue, a few transcriptions – translated from Polish – of extracts derived from dialogues with the participants are presented in Table 4, below.

Table 4. Sample conversations with the children taking part in the study. (The selected examples demonstrate how the evaluation sessions looked like.)

Sample 1:	
P3, after watching a film with a “conventional” AD (cAD)	Interviewer: What it means that the cloud had a cloudy face? P3: She was sad. Interviewer: And when I say that a man has a cloudy face, what do I mean? P3: That this man is discontented or... or got angry.
Sample 2:	
P7, after watching a film accompanied by an AD with metaphors (mAD)	Interviewer: What does it mean that somebody “brightens up”? P7: Hmm... Interviewer: OK, I’ll give you an example: what does it mean that the baby made by a cloud brightened up? P7: It means that the baby was already happy after getting presents. After a prompt P7 seemed to understand what this metaphor means. Nevertheless, s/he could not explain it clearly and s/he referred rather to the plot of the film and emphasised the effect of child’s brightening up, not the transition from child’s bad to good mood.
Sample 3:	
P10, mAD	Interviewer: What does it mean that the little goat from the film wasn’t sweet? P10: I don’t agree with it. In my opinion it was sweet. But the goat was naughty, and this is why the adults think it wasn’t sweet.

⁶ The control question included the expression “not to believe one’s ears”.

Sample 4:	
P15, mAD	<p>Interviewer: The boy's dad and granddad both had moustaches. What were they?</p> <p>P15: Bushy!</p> <p>Interviewer: And what does it mean the "bushy moustache"?</p> <p>P15: I think... I think that it is the big one.</p> <p>Interviewer: Why do you think so?</p> <p>P15: Because when you add numbers you have a sum*. So, the sum must be big.</p> <p>*pl. <i>suma</i> – the result of adding</p>
Sample 5:	
P9, cAD	<p>Interviewer: What does it mean to have a bushy* moustache?</p> <p>P9: I don't know.</p> <p>Interviewer: And if I told you that the dad and the granddad from the film had the bushy moustaches...</p> <p>P9: They had big and long moustaches!</p> <p>Interviewer: How do you know that?</p> <p>P9: I know it because the narrator said that granddad had even a bigger moustache than dad had.</p> <p>*pl. <i>sumiaste</i>, meaning "such as the catfish (pl. <i>sum</i>) has"</p>

On the basis of the received answers it cannot be unambiguously stated that it is the figurative language in the AD that contributed the most to the appeal of the watched content. Figurativeness seems to be a meaningful but nonetheless relative factor. Although as many as 2/3 of the children found the film accompanied by the figurative AD more attractive, there are also other factors that ought not to be neglected when interpreting the results. Twelve participants declared that they preferred *Partly Cloudy*, four of whom watched this film as the first one and the other eight as the second one. Six participants enjoyed *La Luna* the most, for five of whom it was the second film watched. No matter which film the children favoured, they all declared that the story presented in the chosen one was more interesting and funnier, and as part of the clarification they mentioned the parts of the plot they liked the most. The participants' gender, age and condition of sight do not seem to have influenced their preferences in this domain. One can therefore conclude that *Partly Cloudy* on the whole better suited the tastes of children taking part in the test. Yet it can also be observed that most of the participants (13/18) identified the plot of the second watched film as more attractive, which may suggest that recent exposure increases the rating. To recap, the three mentioned tendencies⁷ may be treated as equal when it comes to their impact on the attractiveness of the film according to children.

Moreover, there are two other facts worth highlighting with reference to these two kinds of AD ("conventional" vs. "metaphorical"), considering that 2/3 of the participants preferred the film with metaphorical AD. First, with only one exception⁸, every time when the film watched as first was claimed to be better, it was the one with AD written in figurative language. Secondly, (also with only one exception) all those who selected *La Luna* as the better film chose it with "metaphorical" AD. On the basis of this evidence, it can be concluded that metaphorical utterances made AD definitely more impressive to children, and that this kind of AD suited *La Luna* particularly well, and – at the same time – augmented the appeal of this film.

⁷ (1) Presence of metaphors in AD track: children rated more highly a film audiodescribed with use of figurative language; (2) the film itself along with the viewer's individual interests and preferences concerning the watched content: most of the participants found *Partly Cloudy* more amusing than *La Luna*; and (3) the order of films: children were more likely to rate the second (=last) watched film more highly.

⁸ Performed by P5 who in fact was not sure which story s/he preferred and changed his mind a couple of times before taking the final decision.

Younger participants in the test, regardless of the “film plus AD track” set presented to them, did not make any metalinguistic remarks on the content they had heard. The older ones, on the contrary, turned out to be more aware of the styles of AD presented to them and they mentioned some metaphors and especially word plays related to them as pleasant (e.g. P16 found the utterance “the cloud has a cloudy face” particularly funny). For the youngest viewers, as well as for the blind ones, metaphors made some parts of both the AD and the film obscure – while retelling the story, they misinterpreted various facts based on these parts of the narration that were not clear to them. Younger participants quite commonly supported their narration by gesturing, especially while defining the size or shape of the described thing. However, not only visual features were depicted in that way but also the characters’ nature (or rather the feelings they evoke); for instance, it was quite typical that while talking about “sweet kittens” children pressed their joined palms to their faces, as if they were holding a small and adorable animal and wanted to kiss it. Similarly, when describing the kittens, they also used a more caressing tone – the one typically used while speaking to babies and toddlers. All of this may be an illustration of the culture-specific relation to what (and how) society perceives as “cute” and “sweet”.

At the same time, however, the presence of metaphors significantly affected the children’s language, in particular their use of metaphors: in their answers about the film with “metaphorical” AD, children repeatedly used figurative utterances heard in the AD tracks. Additionally, after listening to this kind of AD, children themselves more intensely produced metaphors and metaphor-based comparisons – innovative ones, not heard in the presented AD tracks. This may suggest that the presence of figurative language encouraged them to use similar means of expression in their answers. Similar linguistic behaviour was considerably rarer (though not completely absent; e.g. P13 compared the moon to a banana) in the statements of children after watching the film accompanied by the “conventional” AD. The outcome of this study seems to be much in line with Stewig’s (1966) theorem stating that the presence of metaphors in various texts/readings dedicated to children has the potential to inspire children to use them and to produce new ones. One can therefore state that a similar educational effect may be effectively triggered by metaphorical AD.

Additionally, some trends were distinguishable with respect to the understanding of metaphorical utterances by young participants of the study. Interestingly, children who had not known the meaning of a metaphorical utterance at the stage of the control questions could often understand and explain it after watching a film with “conventional” AD – sometimes they even declared that they had heard them before and just did not remember their meaning (cf. Table 3). It seems that they could associate the questions posed after the screening with the corresponding scenes from the film and descriptions accompanying them and on the basis of this draw conclusions about the meaning of the metaphor, which shows the importance of the context for metaphor processing. What is more, when the metaphor additionally appeared in the AD track, the number of correct and more precise answers was higher (*ibid.*). This means that a metaphor’s appearance in AD along with the relevant context in which it appears (including the visual one) strongly draw children to this metaphor and incline them to reflect on its meaning, and – as a result – to acquire it. For better illustration, there were on average 41.67% correct (+) answers to the control questions, 43.59% in the test questions after the sessions with “conventional” AD and 55.36% correct answers after the sessions with “metaphorical” AD.⁹ The percentage of totally wrong (-) answers also changes: 41.73% to control questions (the result almost

⁹ The percentage share of correct answers after the sessions with “metaphorical” AD is 57,01% for sighted children and 53,70% for children with visual impairment. After the sessions with “conventional” AD the results are 52,91% and 34,26% for these two groups of participants respectively.

identical to that of correct answers), 40.54% after the sessions with “conventional” AD and only 30.16% after the sessions with “metaphorical” AD.¹⁰ Thus, when it comes to the understanding of metaphorical utterances in relation to the kind of AD which accompanied the film, a considerable difference in favour of the “metaphorical” AD can be observed.

With reference to the data presented in Table 3 (pp. 160-162), one can assume that only in five questions out of eighteen, children scored better after watching a film with “conventional” AD, and in three of these five cases the difference between their results and the results obtained by the children watching a film with “metaphorical” AD was insignificant. Also, the increase in the number of correct answers in comparison to the control questions is more significant in the case of “metaphorical” AD – there is only one exception when the “conventional” AD gave a more significant increase in metaphor understanding. Moreover, in single cases, after watching a cartoon with “conventional” AD, a child displayed worse understanding of the metaphor or started to confuse its meaning because of false associations which did not occur after watching a cartoon with “metaphorical” AD when this metaphor appeared in a context explicative enough to enable children to grasp the figurative meaning of the statement introduced in the AD track. The crucial importance of the visual context in which the metaphorical utterances appear was most evident in the cases of those children who gave them their own imaginative interpretations, e.g. narrowed or distorted, as a result of the associations they made on the basis of the visual stimuli which were not supplemented by metaphors provided via AD, i.e. referring to colours of the presented objects (after a hint that the grandfather’s and father’s moustaches were bushy, one of the participants said that this meant that they were grey and black) or portraying them by means of gestures (the characteristic shape or length of the already mentioned moustaches, or the cuteness of small animals).

Similarly, better scores obtained by the sighted children – after watching the film with both “conventional” and “metaphorical” AD – also show the vital significance of the visual stimuli in the process of figurative language comprehension (cf. p. 163-164, fn. 9 and 10). As Clark (2004) states, visual metaphors have an especially wide use, since regardless of the receiver’s age, vision constitutes a shared basis for deriving meaning. Indeed, the importance of the visual layer for the children’s predictions of the possible sense of metaphors was decisive, e.g., only thanks to the association with what was shown in the visual layer could P7 understand that the transformation of a grapefruit into a croissant is the moon’s transition from one form into another, although s/he basically knew that a moon ‘is’ a croissant, since this is a conventional comparison in Polish.

Child’s general knowledge and earlier experience turned out to be imperative in metaphor processing. In this respect, quite commonly in the conduct of the study, when children were asked what it meant that the cloud from the film had a “cloudy” face, they referred explicitly to the emotional state of the cloud, saying it meant that it was sad, evil, angry or even furious. But when they were asked what it meant when somebody had a “cloudy” face, they did not ascribe the same meaning to this expression. Instead, as many as half of the children interpreted this expression’s meaning in a different way, also adequate, but it was difficult not to get the impression that they were referring directly to their own or their relatives’ emotional states (e.g. dissatisfaction, unhappiness, restlessness, grumpiness, worry or anger; cf. Sample 1 in Table 4), that is to what they knew from their own experience, including situations in which this utterance is conventionally used by Polish natives. Moreover, it was the older children who could better associate the

¹⁰ Sighted children provided 26,06% of wrong answers after watching a film with “metaphorical” AD and 34,79% after the one with “conventional” AD, while the scores of children with visual impairment were 34,26% and 46,30% respectively.

metaphors heard with utterances known from other sources and who could link them to each other in order to grasp their meaning. The above-mentioned illustrations tend to prove that children's earlier life experience as well as their experience with non-literal language is of pivotal importance to their ability to process metaphors; both of them are age-related factors. Some younger children had serious difficulties with assessing the metaphor's denotation, no matter with what kind of AD they watched the film. Their initial knowledge of non-literal language was so rudimentary that even "metaphorical" AD could not make it better; e.g. P11, the youngest respondent, could understand the reason for the cloud's "cloudy face" but was not able to apply this idiom to humans. On the other hand, older children and especially those who were more experienced as book readers—and because of this also more developed linguistically (P16 was an outstanding example of this)—inflated the average result, since their initial knowledge of metaphors was significantly higher, and they easily revealed the sense of figurative sentences and produced new ones.

5. FINAL REMARKS

The results of this study suggest that the use of figurative language in AD tracks has an influence on both the reception of the broadcast content and the processing of metaphorical meaning by children. The numbers provided in section 4 show that children's acquisition and production of metaphorical language can be effectively stimulated by an AD track. Nevertheless, to ensure their correct understanding (socially accepted or consistent with the author's intentions) an explicit context or direct explanation must be provided at once. To be clear, if we want to enable children – both with and without visual impairment – to acquire new metaphors and their meaning from AD, this meaning must be clearly defined by the context, or explained in dialogues or in narration provided through AD itself.

A weak point of the study may be a relatively small number of participants with visual impairment. However, even on the basis of the data at our disposal, differences between sighted and blind populations may be observed. Though generally, the participants proved to better understand figurative utterances after watching films accompanied by a "metaphorical" AD track than after watching those accompanied by a "conventional" one. In both cases, the scores obtained by the sighted children were higher than those obtained by their peers with sight loss (cf. p. 163-164). This result is caused by the fact that sighted children's cognitive processes are supported by both visual and aural stimuli at once. This proves that a suitable clarification of metaphor – in this case, provided by the presence of two separate contexts, both noticeably contributing to a better understanding of metaphorical language – is crucial for its processing by children.

As a consequence of being deprived of the visual context, children with visual impairment frequently took the AD more literally, which hindered their comprehension of some parts of the plot. But at the same time, some metaphors – especially those related to real-life experience, though not peculiar to sight – or objects known to children with sight loss helped them to understand the plot and stimulated them to use metaphors to describe the phenomena they wished to discuss. This is related to what Emig (1972) wrote about metaphor as a means to comprehend the world, whereas in some cases, for children who are blind, metaphor may be the only way of experiencing the world around.

Although this study gives an idea about AD as a device for children's entertainment and education, it would be advisable to repeat it with a larger group of participants. It is also necessary to stress that it was only the potential of AD that was tested, since it is difficult to establish the permanency of metaphor acquaintance in the participants.

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